



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2013-0752; Product Identifier 2009-SW-44-AD; Amendment 39-21490; AD 2021-07-13]**

**RIN 2120-AA64**

### **Airworthiness Directives; Pacific Scientific Company Seat Restraint System Rotary Buckle Assemblies**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain Pacific Scientific Company rotary buckle assemblies (buckles). This AD requires inspecting each buckle including its buckle handle vane, and depending on the results, removing the buckle from service and installing an airworthy buckle. This AD also prohibits installing the affected buckles. This AD was prompted by several reports of cracked buckle handles. The actions of this AD are intended to address an unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain document listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Meggitt Services, 1785 Voyager Ave., Simi Valley, CA 93063, telephone 877-666-0712 or at [CustomerResponse@meggitt.com](mailto:CustomerResponse@meggitt.com). You may view the referenced service information at

the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. It is also available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2013-0752.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2013-0752; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD, any service information that is incorporated by reference, any comments received, and other information. The street address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Kristi Bradley, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email [kristin.bradley@faa.gov](mailto:kristin.bradley@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

The FAA issued a supplemental notice of proposed rulemaking (SNPRM) to amend 14 CFR part 39 by adding an AD that would apply to Pacific Scientific Company buckle part numbers (P/Ns) 1111430 and 1111475, all dash numbers. The SNPRM published in the *Federal Register* on September 24, 2020 (85 FR 60100). The FAA preceded the SNPRM with a notice of proposed rulemaking (NPRM) that published in the *Federal Register* on September 5, 2013 (78 FR 54594). The NPRM proposed to require inspecting each buckle for a crack and the thickness of the buckle handle vane.

Depending on the inspection results, the NPRM proposed to require replacing the buckle. The NPRM also proposed to prohibit installing an affected buckle on any helicopter or airplane. The SNPRM proposed to the same requirements except with longer compliance times to accomplish the inspections. The SNPRM also corrected the name of Pacific Scientific Aviation Services to Pacific Scientific Company, updated the estimated costs of compliance, edited the Applicability paragraph by adding a note to clarify that an affected buckle could be included as a component of a different part-numbered restraint system assembly and reference Appendix 1 of Pacific Scientific Service Bulletin SB 25-1111432, dated May 22, 2007 (SB 25-1111432), which lists the P/Ns of potentially affected restraint systems, updated the names of certain potentially-affected Type Certificate holders, and updated the contact information name and contact information from Pacific Scientific Aviation Services to Meggitt Services.

The NPRM was prompted by EASA AD 2007-0256, dated September 19, 2007, issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for certain Pacific Scientific Company Seat Restraint System Plastic Rotary Buckle Handles. According to EASA, Pacific Scientific Company reported several instances of cracked handles on certain buckles with a date of manufacture from November 2004 through May 2007. Testing on buckles with a cracked handle indicated that in some circumstances, a load placed on the restraint system prevents a strap from releasing as intended when the buckle is rotated. EASA states in its AD that this failure to release is possible when a passenger weighs more than 50 kg (approximately 110 lbs.) and an aircraft is upside down.

## **Comments**

After the SNPRM was published, the FAA received comments from two commenters.

## **Request for Credit**

NetJets QC requested that this AD allow credit for compliance with Cessna Citation Service Letter (SL) 560-25-09, Cessna Citation SL560XL-25-10, or Cessna Citation SL750-25-15, each dated December 10, 2007. NetJets QC also requested that provisions be written in the AD for logbook / Illustrated Parts Catalog (IPC) research sign-off, since these buckles may not be installed on newly-manufactured aircraft.

The FAA disagrees with both requests. This AD is an appliance AD that applies to Pacific Scientific Company buckles P/Ns 1111430 and 1111475, all dash numbers, without regard to date of manufacture, whereas each SL distinguishes the affected parts by date of manufacture. If an affected buckle is not installed on an aircraft, then this AD does not apply, and credit and provisions are not necessary to relieve this AD's requirements for the concerned aircraft. However, this AD does not prohibit using maintenance records to determine if an affected buckle is installed. Using an IPC is not an acceptable method to determine an aircraft's configuration.

### Addition of MU-2B Aircraft

Mitsubishi Heavy Industries America, Inc. (MHIA) suggested that the FAA add “Mitsubishi MU-2B series aircraft” to the list of aircraft models that could be affected by this AD. MHIA stated that Mitsubishi Heavy Industries, Ltd., holds Supplemental Type Certificate No. SA1751SW, which allows installation of certain affected buckles on Mitsubishi MU-2B series aircraft.

The FAA partially agrees. The FAA agrees that affected buckles could be installed on Mitsubishi Heavy Industries, Ltd., Model MU-2B series airplanes; however, the applicability only identifies possible installations on airplanes and helicopters by “make” and not “models.” Accordingly, the FAA has added Mitsubishi Heavy Industries, Ltd., to the list of airplanes that affected buckles could be installed on in the applicability of this final rule.

### Extension of Compliance Time

MHIA requested extending the compliance time to at least 12 months, as replacement parts could be in short supply. MHIA states that it has attempted to contact the product support representative at Meggitt Services located in Simi Valley, CA in order to obtain additional technical information; however, no formal response had been received from Meggitt Services when MHIA submitted this comment on November 9, 2020. MHIA expressed concern that with limited support from Meggitt Services, owners and operators of affected airplanes will have difficulty meeting the compliance requirements because of a potential lack of sufficient replacement parts.

The FAA acknowledges MHIA’s concern about contacting Meggitt Services and has re-confirmed that its contact information is accurate. The FAA disagrees with changing the compliance time to inspect an affected buckle handle for a crack from 6 months to 12 months based on a potential lack of sufficient replacement parts. The FAA has not received any information to indicate that there is an insufficient number of

replacement parts that would necessitate extending the compliance time from that stated in the proposed AD.

### **FAA's Determination**

These products have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA of the unsafe condition described in its AD. The FAA is issuing this AD after evaluating all of the information provided by EASA and determining the unsafe condition exists and is likely to exist or develop on other products and that air safety and the public interest require adopting the AD requirements as proposed with the changes described previously. These changes are consistent with the intent of the proposal in the SNPRM and will neither increase the economic burden on any operator nor increase the scope of this AD.

### **Differences Between this AD and the EASA AD**

The EASA AD applies to certain buckles used on certain restraint systems that are known to be installed on, but not limited to, certain Eurocopter (now Airbus Helicopters) model helicopters. The applicability of the EASA AD is limited to rotorcraft only and is not intended for airplanes. Since the affected buckles may be installed in other aircraft resulting in the same unsafe condition, this AD applies to the same certain buckles, which may be installed on but not limited to certain airplanes and helicopters. This AD does not require returning the unairworthy buckle assembly to the manufacturer, and this AD does not apply to spare parts that are not installed on an aircraft. Also, this AD applies to buckle P/Ns 1111430 and 1111475, all dash numbers, and is not dependent on the restraint P/Ns. The EASA AD requires inspecting the buckles within 30 days, whereas this AD requires inspecting the buckle handle for a crack within 6 months and the buckle handle vane thickness within 12 months instead. The EASA AD requires a repetitive inspection of each buckle for cracks before any flight for up to 6 months following the

effective date of the EASA AD until the buckle is replaced. This AD does not require an inspection for cracks before any flight for the 6 months until the affected buckles are replaced. The EASA AD identifies suspect parts by date of manufacture, and this AD does not. Finally, the EASA AD allows for marking a seat as “un-operative” and this AD does not.

### **Related Service Information Under 1 CFR part 51**

The FAA reviewed SB 25-1111432, which specifies inspecting each buckle P/Ns 1111430-XX and 1111475-XX with a date of manufacture between November 2004 and May 2007, to identify whether the handle is one susceptible to cracking by checking the P/N on the reverse side of the buckle assembly or by measuring the thickness of the handle vane. If the buckle is identified as a “suspect” buckle, this service information provides procedures for removing the buckle and replacing it with an acceptable buckle. Information in this service information also advises that buckles with a cracked handle should be removed from service immediately.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **Costs of Compliance**

The FAA estimates that this AD will affect 1,435 restraint systems installed on aircraft of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates that operators may incur the following costs in order to comply with this AD.

Inspecting a buckle costs a minimal amount and takes a nominal amount of time. Replacing a buckle takes about 0.5 work-hour and parts cost about \$636 for an estimated cost of \$679 per buckle and up to \$974,365 for the U.S. fleet.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on helicopters identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:



## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2021-07-13 **Pacific Scientific Company:** Amendment 39-21490; Docket No. FAA-2013-0752; Product Identifier 2009-SW-44-AD.

#### **(a) Applicability**

This airworthiness directive (AD) applies to Pacific Scientific Company rotary buckle assembly (buckle), part numbers (P/Ns) 1111430 and 1111475, all dash numbers. These buckles may be installed on but not limited to Bombardier Inc., Learjet Inc., Mitsubishi Heavy Industries, Ltd., Textron Aviation, Inc. (Type Certificate (TC) previously held by Cessna Aircraft Company), and Viking Air Limited (TC previously held by de Havilland, Inc.) model airplanes and Airbus Helicopters (TC previously held by Eurocopter France) model helicopters, certificated in any category.

Note 1 to paragraph (a): The rotary buckle may be included as a component of a different part-numbered restraint system assembly. Pacific Scientific Service Bulletin SB 25-1111432, dated May 22, 2007 (SB 25-1111432), Appendix 1, includes a list of these restraint system P/Ns.

#### **(b) Unsafe Condition**

This AD defines the unsafe condition as a cracked rotary buckle handle, which could prevent a strap from releasing as intended when the buckle is rotated.

#### **(c) Effective Date**

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(d) Compliance**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(e) Required Actions**

(1) Within 6 months, inspect the buckle handle for a crack. If the buckle handle is cracked, before further flight, remove the buckle as depicted in Figure 5 and by following the Procedures, paragraph 9, of SB 25-1111432, and replace it with an airworthy buckle, except you are not required to return the removed buckle to Pacific Scientific.

(2) Within 12 months, measure the thickness of the buckle handle vane as depicted in Figure 3 of SB 25-1111432. If the handle vane thickness is 0.125 inch or greater, before further flight, remove the buckle from service and replace it with an airworthy buckle.

(3) As of the effective date of this AD, do not install a buckle or a restraint system with a buckle, P/N 1111430 or 1111475, all dash numbers, with a handle vane thickness of 0.125 inch or greater on any airplane or helicopter.

**(f) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, International Validation Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Kristi Bradley, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email 9-AVS-AIR-730-AMOC@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, the FAA suggests that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

**(g) Additional Information**

The subject of this AD is addressed in European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD 2007-0256, dated September 19, 2007. You may view the EASA AD on the Internet at <https://www.regulations.gov> in Docket No. FAA-2013-0752.

**(h) Subject**

Joint Aircraft Service Component (JASC) Code: 2500, Cabin Equipment/Furnishings.

**(i) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Pacific Scientific Service Bulletin SB 25-1111432, dated May 22, 2007.

(ii) [Reserved]

(3) For service information identified in this AD, contact Meggitt Services, 1785 Voyager Ave., Simi Valley, CA 93063, telephone 877-666-0712 or at [CustomerResponse@meggitt.com](mailto:CustomerResponse@meggitt.com).

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the

availability of this material at NARA, email [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov), or go to:

<https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on March 25, 2021.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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